

Correspondence.

Occupation for Old People.

To the Editor of the Scientific American:

In vol. 66, No. 4, page 55, you have a piece copied from *Chautauquan* on "Occupation for Old People."

I am not a writer nor much of a scholar, but I would like to read more written on the same subject by some one who has given the same more thought.

The above piece is most wholly written with a person in view who has been engaged in some occupation that was light—mostly brain work. I would like to have some one point out new work for men who have been machinists, masons, engineers, jewelers, blacksmiths, and similar trades.

I know a man who is past 60. He has been a good machinist and locomotive engineer; at one time a master mechanic (20 years ago) in railroad shops in Indiana. He is one of my daily callers. (I am a jeweler, 27 years old.)

He enjoys pretty good health for one of his age; but he is too old to work at his trade—is not strong enough, his eyes are not sharp enough. Some days he is happy, other days he is the "bluest" man I ever saw. He is always wishing he had something to do. He has plenty of money to keep him the rest of his life; but still he is discontented.

I think he would live longer if he had something to busy his hands with.

Of course the other tradesmen are about like the one I have told of: too old for the trade they have worked at all their life, and need something new to keep their hands and minds in better shape than will idleness, not so much for what they earn, but to keep them from seeing their age and-looking for death.

I am young, have worked at watch repairing for nine years, my eyes are fine, and nerves good; but what am I going to do when I get too old for this work?

JOHN W. BLINN.

Antigo, Wis., Feb. 1, 1892.

Population of Alaska.

According to Census Bulletin 150, the population of Alaska is classified as follows:

Whites.....	4,303
Mixed (Russian and native).....	1,819
Indians.....	23,274
Mongolians.....	2,287
All others.....	112
Total.....	31,795

The Indians are again divided as follows:

Eskimo.....	12,784
Thlinket.....	4,739
Athabaskan.....	3,441
Aleut.....	968
Tsimpsian.....	951
Hyda.....	301
Total.....	23,274

The enumeration was compiled under the direction of Mr. Ivan Petroff, special agent in charge of the Alaska Division of the Census Office.

Bound to Head it Off.

A young woman of Chicago has tabulated a list of symptoms of *la grippe* as follows:

- Headache.
- Pain in the back.
- Can't taste anything.
- Can't smell anything.
- Can't eat anything.
- Don't want to anyway.
- That tired feeling.
- Don't want to speak to any one.
- Don't want any one to speak to me.
- Don't care.
- High fever.
- Chills.
- Craving for ardent spirits.
- No craving.
- Want to die.
- Don't want to.

Whenever she feels the approach of any of the foregoing symptoms, she checks it off on her list and asks her mother to send for a doctor.—*Bulletin of Pharmacy*.

[The above faithfully describes the symptoms of the same complaint prevailing in our Eastern cities and towns.—Ed.]

Illegal Telegram Contract.

The Court of Appeals of Montreal has rendered a decision in the case of the Northwestern Telegraph Company vs. Laurence, in which it declares illegal a contract printed on the blanks furnished by the telegraph company. The proof established the fact that the error was due to the negligence of the employees of the company. The appellant set up the plea that the dispatches were sent under a contract which declared that it (the appellant) would not be liable for damages resulting from errors unless the dispatch was repeated, and then only to the amount of fifty times the sum paid for the message. The Court of Appeals declared that this contract was contrary to public policy.

Liberal Education.

What should be the marks of a liberally educated man? I assume that, in common with strong characters who are not liberally educated, he has a vigorous will, by which the downward tendencies of his nature are resisted, and the upward aspirations of his soul are sustained and developed. I say nothing further in regard to his moral qualities, although they are closely related to those of the intellect. Five intellectual powers, as it seems to me, should be the property of every liberally educated man.

First, he must have the power of concentration; that is to say, he must be able to hold his mind, exclusively and persistently, to the subject which demands his attention. If this power is exercised in the domain of natural or physical science, it implies the most accurate observation of phenomena—the finest discrimination of the eye; in mathematics, it implies close analysis of all the conditions of the problem considered; in language, it implies the most attentive regard to the significance of terms and propositions.

The second power of an educated man is that of distribution. The knowledge that he acquires by close attention is of little value unless it is arranged and classified. His possessions must be placed in the groups where they belong, so that by association they may be at command whenever required. The man who knows a hundred thousand facts which have never been reduced to principles is like a millionaire whose fortune consists in tons of copper cents.

Third, the man of liberal education must have the power of retention; that is to say, he must tenaciously hold and remember that which he has learned. It is not enough that he can look up his acquisitions with effort; he must recollect them readily as occasion arises for their use.

Fourth, the liberally educated man must have the power of expression; that is to say, he must know how to state his thoughts so as to reach the minds of others; and this utterance should be equally good whether the pen or the voice be the instrument of communication.

Finally, the educated man must have the power of judging; that is to say, he must be able to make sharp discriminations between that which is true and that which is false, that which is good and that which is bad, that which is temporary and that which is perpetual, that which is essential and that which is accidental. In other words, he must have the power to lay the emphasis where it belongs, and this will soon bring with it the allied moral power of decision, of making a choice between the one side and the other. All this may be summed up in the one word wisdom.

But again, it is not enough to have these powers. The liberally educated man must also have certain possessions, which will be like the capital of a merchant, useful to him for the promotion of his own enjoyment and for the increase of his usefulness.

First among the branches of knowledge which he should possess, I would name the knowledge of his own physical nature, especially of his thinking apparatus, of the brain and the nervous system, by which his intellectual life is carried forward. This implies that he should also have a knowledge of the lasting effects of bodily habits upon mental vigor. He ought to know how best to lead an intellectual life, how best to discipline his body by the proper laws of sleep, diet, and exercise, and by the right employment of those supports which may be helps or may be curses.

Second, he should have a knowledge of his own tongue, of its history and development, of its laws, its idioms, its capabilities, its use. If he knows all the languages of Babel and has not the command of his own, he is most imperfectly educated.

Third, in these days it is important that he should also have a knowledge of other modern tongues. More than two of these would be advantageous, but a liberal education absolutely requires that every English-speaking person should have a knowledge of French and German also.

Fourth, the liberally educated man should also be acquainted with the principles and methods of scientific inquiry.

Fifth, a liberally educated man should know something of the great literatures of the world. Whether he acquires that knowledge by the study of the original tongues or through translations, he should become acquainted with the masterpieces of poetry, eloquence, history, the drama. Isaiah and Paul, Homer and the Greek tragedians, Dante and Petrarch, Shakespeare, Cervantes, Goethe, should be his familiar friends; not because he has "read about them" in the biographical dictionary or in the annals of literary history, but because in hours of repose he has read their pages, reflected upon their thoughts, and given himself up to their inspiring influence.

Sixth, the liberally educated man must have a knowledge of the experiences and opinions of mankind. He must know the intellectual history of his race, the slow and wearisome steps by which civilization has advanced from the dawn of our institutions and ideas down to the discussions of our own day. It is obvious that a "liberal" education is not to be limited by the period devoted to a college course or a course in technology.

It begins in the nursery, it goes on in the domestic circle, it continues through school, college and university, it only ends with life.—Prof. Daniel C. Gilman, in the *Educational Review* for February.

The Transport of Ammonia.

Ammonia has been carried in considerable quantities on the upper decks of steamers, but in many vessels the bottles, carboys, or tins are stowed in the between decks. In fact, they are sometimes stowed in vacant cabins of cargo vessels. The recent explosion of one of these receptacles has awakened attention to the placing of such substances dangerously near heat. The master of the vessel on whose ship the explosion happened unscrewed the tops of all those undamaged, and thus allowed the gas to blow off. Restrictions on carriage of dangerous goods were imposed under the Merchant Shipping Act, 1873, section 23 of which provides that if any person sends or attempts to send by, or, not being the master or owner of the vessel, carries or attempts to carry, in any vessel, British or foreign, any dangerous goods, such as aquafortis, vitriol, naphtha, gunpowder, lucifer matches, nitroglycerine, petroleum, or any other goods of a dangerous nature, without distinctly marking their nature on the outside of the packages containing the same, and also giving written notice of the nature of such goods and the name and address of the sender, he shall be liable to a penalty not exceeding £100; but if the person sending the goods on board is merely an agent and ignorant of the contents, the penalty is not to exceed £10. False description makes the sender liable to a penalty of £500. The master or owner of a ship may refuse to take on board a vessel any suspicious package, and may require it to be opened to ascertain its contents. Clause 26 in the act has always been looked upon as a mistake in legislation. The master of a ship is empowered to throw overboard goods of a dangerous nature which have been sent without being marked or notified of their true character, and neither the master nor the owner of the vessel shall be subject to any liability for such casting into the sea, civil or criminal, in any court. There is no reason for denouncing the carriage of ammonia by sea, but it is of the greatest importance that each special compound should be accurately defined, and that it ought not to be exposed to heat. If everything that expanded on submission to heat were interdicted, the shipping trade would be sadly hampered. For example—yeast is shipped for conveyance, and is usually carried on deck. In hot weather the casks have been broken and hoops burst from exposure to the sun, although no material damage is done. We could name other breakages, but enough has been urged to bring home the necessity for understanding what to carry and where to stow it.—*Chem. Tr. Jour.*

Pathological Anatomy of Insanity.

In the *Journal de Medecine de Paris*, March 1, 1891, Dr. Luys states that in examinations of brains of patients suffering many years from excitement, there is hypertrophy of certain special regions of the paracentral lobules. These lobules are the point of confluence of cortical psycho-motor convolutions and one of the regions where accumulate specially psycho-motor innervations. Hypertrophy would, therefore, indicate a focus of continued excitation, absorbing undue vitality, and leaving other regions to undergo more or less marked atrophy. This hypertrophy is usually symmetrical in both hemispheres. In the brain of a woman who had a visceral delusion, that was almost her sole idea, to the effect that a tape worm found a lodgment within the internal organs and came and went at pleasure, there was unilateral hypertrophy of the paracentral lobules, those in one hemisphere remaining perfectly normal. The patient was perfectly lucid and rational on all subjects except this one delusion, though it was difficult to induce her to speak of any other. Anatomically, Dr. Luys explains the coexistence of clearness of mind and a delusion. She was insane in one hemisphere of the brain and sane with the other. For such cases, the colloquial term "unbalanced" would seem to be literally true.—*Medical Record*.

Manganine, a New Alloy.

Manganine is the name of a new alloy, consisting of copper, nickel, and manganese, which has been brought on the market, says *Iron*, by the German firm Abler, Haas & Angerstein, as a material of great resisting power. The specific resistance of manganine is given as 42 microhm centimeters, that is, higher than that of nickeline, which has hitherto passed as the best resisting metal. Another advantage of manganine is its behavior under variations of heat, the resistance, it is claimed, being affected only in a minute degree by high temperatures. It is therefore adapted for the manufacture of measuring instruments and electrical apparatus in general, which are required to vary their resistance as little as possible under different degrees of heat. A further interesting fact is that, while other metals increase their resistance by the raising of the temperature, that of manganine is diminished.